



# Superconductors Enable Lower Cost MRI Systems

**Glenn Research Center**

**Hyper Tech Research  
Columbus, OH**

## NASA Technology

- ◆ In an effort to “green” air travel and make it more efficient, NASA is looking to motors made from superconductor material to reduce fuel burn.
- ◆ The Agency considered the superconducting material magnesium diboride (MgB<sub>2</sub>), but found it expensive and difficult to manufacture.

## Technology Transfer

- ◆ Hyper Tech Research, with Small Business Innovation Research (SBIR) funding, has been working with MgB<sub>2</sub> and has developed and patented its process for manufacturing superconducting wires.
- ◆ The company is working with companies to develop MgB<sub>2</sub> wire for magnetic resonance imaging (MRI) devices in hopes of driving down their cost.



## Benefits

- ◆ Since 2003 Hyper Tech has increased its revenue from \$1 million to \$5.4 million and has hired 19 new workers.
- ◆ The worldwide demand for lightweight generators for offshore wind power could create another market for MgB<sub>2</sub> wire.